

§ 27.733

- (1) Maximum weight; and
- (2) Critical center of gravity.
- (c) The maximum limit load rating of each wheel must equal or exceed the maximum radial limit load determined under the applicable ground load requirements of this part.

§ 27.733 Tires.

- (a) Each landing gear wheel must have a tire—
 - (1) That is a proper fit on the rim of the wheel; and
 - (2) Of the proper rating.
- (b) The maximum static load rating of each tire must equal or exceed the static ground reaction obtained at its wheel, assuming—
 - (1) The design maximum weight; and
 - (2) The most unfavorable center of gravity.
- (c) Each tire installed on a retractable landing gear system must, at the maximum size of the tire type expected in service, have a clearance to surrounding structure and systems that is adequate to prevent contact between the tire and any part of the structure or systems.

[Doc. No. 5074, 29 FR 15695, Nov. 24, 1964, as amended by Amdt. 27-11, 41 FR 55469, Dec. 20, 1976]

§ 27.735 Brakes.

For rotorcraft with wheel-type landing gear, a braking device must be installed that is—

- (a) Controllable by the pilot;
- (b) Usable during power-off landings; and
- (c) Adequate to—
 - (1) Counteract any normal unbalanced torque when starting or stopping the rotor; and
 - (2) Hold the rotorcraft parked on a 10-degree slope on a dry, smooth pavement.

[Doc. No. 5074, 29 FR 15695, Nov. 24, 1964, as amended by Amdt. 27-21, 49 FR 44434, Nov. 6, 1984]

§ 27.737 Skis.

The maximum limit load rating of each ski must equal or exceed the maximum limit load determined under the applicable ground load requirements of this part.

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FLOATS AND HULLS

§ 27.751 Main float buoyancy.

(a) For main floats, the buoyancy necessary to support the maximum weight of the rotorcraft in fresh water must be exceeded by—

- (1) 50 percent, for single floats; and
- (2) 60 percent, for multiple floats.

(b) Each main float must have enough water-tight compartments so that, with any single main float compartment flooded, the main floats will provide a margin of positive stability great enough to minimize the probability of capsizing.

[Doc. No. 5074, 29 FR 15695, Nov. 24, 1964, as amended by Amdt. 27-2, 33 FR 963, Jan. 26, 1968]

§ 27.753 Main float design.

(a) *Bag floats.* Each bag float must be designed to withstand—

- (1) The maximum pressure differential that might be developed at the maximum altitude for which certification with that float is requested; and
- (2) The vertical loads prescribed in § 27.521(a), distributed along the length of the bag over three-quarters of its projected area.

(b) *Rigid floats.* Each rigid float must be able to withstand the vertical, horizontal, and side loads prescribed in § 27.521. These loads may be distributed along the length of the float.

§ 27.755 Hulls.

For each rotorcraft, with a hull and auxiliary floats, that is to be approved for both taking off from and landing on water, the hull and auxiliary floats must have enough watertight compartments so that, with any single compartment flooded, the buoyancy of the hull and auxiliary floats (and wheel tires if used) provides a margin of positive stability great enough to minimize the probability of capsizing.

PERSONNEL AND CARGO ACCOMMODATIONS

§ 27.771 Pilot compartment.

For each pilot compartment—

- (a) The compartment and its equipment must allow each pilot to perform his duties without unreasonable concentration or fatigue;